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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/728,486	ECKER ET AL.	
	Examiner	Art Unit	
	DAVID C. THOMAS	1637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 April 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *88-206* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *88-206* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *18 April 2008*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's amendment filed April 17, 2008 is acknowledged. Claims 88-206 (newly added) will be examined on the merits. Claims 27-29, 31-35, 37, 38, 50-60, 62-71, 73-78 and 80-87 are newly canceled. Claims 1-26, 30, 36, 39-49, 61, 72 and 79 were previously canceled. Applicants have amended the priority claim to derive from U.S. Patent Application No. 09/798,007 and therefore the priority date is now set as March 2, 2001. The amended claims are supported by the specifications of both the instant application and the priority document.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 27-29, 31-35, 37, 38, 50-60, 62-71, 73-78 and 80-87 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-29 of U.S. Patent No. 7,108,974. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending application claims represent a species of the current claims in which specific numbers of species are in the database and where specific mass is determined. Therefore, the species of claims 1-29 of U.S. Patent No. 7,108,974 anticipates the current, more generic claims and renders them prima facie obvious.

4. Claims 27-29, 31-35, 37, 38, 50-60, 62-71, 73-78 and 80-87 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 7,226,739. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending application claims represent a species of the current claims in which specific numbers of species are in the database and where specific mass is determined. Therefore, the species of claims 1-11 of U.S. Patent No. 7,226,739 anticipates the current, more generic claims and renders them prima facie obvious.

5. Claims 27-29, 31-35, 37, 38, 50-60, 62-71, 73-78 and 80-87 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-28 of U.S. Patent No. 7,255,992. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending application claims represent a species of the current claims in which specific numbers of species are in the database and where specific mass is

determined. Therefore, the species of claims 1-28 of U.S. Patent No. 7,255,992 anticipates the current, more generic claims and renders them prima facie obvious.

6. Claims 27-29, 31-35, 37, 38, 50-60, 62-71, 73-78 and 80-87 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 23-27, 30-34, 44-55 of copending Application No. 10/660,122. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending application claims represent a species of the current claims in which specific numbers of species are in the database and where specific mass is determined. Therefore, the species of claims 23-27, 30-34, 44-55 of copending Application No. 10/660,122 anticipates the current, more generic claims and renders them prima facie obvious.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 88, 119 and 147 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what is meant by "determining two or more base compositions of said two or more amplification products…". One interpretation is that the total base composition is determined by a repeated process,

but it could also be interpreted as determining the base composition of more than one strand of the products. Alternatively, it could refer to determining the compositions of only two bases of the products.

Claim 103 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what is meant by "two or more different etiologic are selected…".

Claim 118, 146, 177 and 206 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what is meant by "two or more segments of nucleic acid are from two or genes selected from…".

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 88, 90, 91, 94-98, 100-105, 118, 119, 121, 126-133, 146, 147, 149, 157-164, 177, 180, 186-193 and 206 are rejected under 35 U.S.C. 102(b) as being anticipated by Lott et al. (Yeast (1993) 9:1199-1206).

With regard to claims 88, 119 and 147, Lott teaches a method of identifying one or more etiologic agents of disease or bioagents in a sample (samples included a

variety of the fungal species *Candida*, p. 1200, column 1, line 29 to column 2, line 9 and Table 1) comprising the steps of:

amplifying two or more segments of a nucleic acid from said one or more etiologic agents in said sample with two or more primer pairs to obtain two or more amplification products (two overlapping segments of the nuclear rDNA 5.8S gene and flanking internal transcribed spacer (ITS) sequences of several *Candida* species were amplified using two primer pairs, p. 1200, column 2, lines 16-32 and Figure 1);

determining two or more base compositions of said two or more amplification products (PCR products were sequenced by automated sequencing, p. 1201, column 2, lines 1-13); and

comparing said two or more base compositions with known base compositions of known etiologic agents produced with said two or more primer pairs to identify said one or more etiologic agents in said sample (sequences were aligned both manually and by a computer program to compare the various *Candida* species and other fungal species, p. 1201, column 2, line 15 to p. 1203, column 1, line 13 and Figure 2).

With regard to claims 90, 121, 149 and 180, Lott teaches a method wherein the amplification products are double-stranded and the base compositions are determined for both strands of the double-stranded amplification products (PCR products were sequenced in both forward and reverse orientations, p. 1201, column 2, lines 10-13).

With regard to claim 91, Lott teaches a method wherein identification of said one or more etiologic agents is accomplished at the genus level (a number of species of the genus Candida were tested, p. 1200, column 1, lines 29-30 and Table 1).

With regard to claims 94, 103, 129, 131, 160, 162, 189 and 191, Lott teaches a method wherein said one or more etiologic agents or bioagents comprise a bacterium, a virus, a protozoan, a parasite, a mold, a fungus, or any combination thereof (a number of species of the fungal genus Candida were tested, see Abstract, p. 1200, column 1, lines 29-30 and Table 1).

With regard to claims 95, 96, Lott teaches a method wherein said sample is a biological sample selected from the group consisting of blood, mucus, hair, urine, breath, sputum, saliva, stool, nail, and tissue obtained from a human (fungal cultures can be grown, but samples can be obtained from skin and mucosal tissues of persons, p. 1199, column 1, lines 5-9 and p. 1200, column 2, lines 3-9).

With regard to claims 97 and 98, Lott teaches a method wherein said two or more primer pairs hybridize to nucleic acid encoding ribosomal RNA and at least one gene encoding a protein that participates in translation, replication, recombination, repair, transcription, nucleotide metabolism, amino acid metabolism, lipid metabolism, uptake, secretion, antibiotic resistance, virulence, or pathogenicity (two overlapping segments of the nuclear rDNA 5.8S gene and flanking internal transcribed spacer (ITS) sequences of several *Candida* species were amplified using two primer pairs, p. 1200, column 2, lines 16-32 and Figure 1).

With regard to claims 100, 101, 126, 127, 157, 158, 186 and 187, Lott teaches a method wherein said two or more segments of a nucleic acid are amplified from a single gene or from different genes (overlapping segments of 5.8 gene are amplified using

ITS1 and ITS3 forward primers, while both 5.8S and 28S segments are each amplified in different products using reverse primer ITS4, see Figure 1).

With regard to claims 102, 104, 105, 130, 132, 133, 161, 163, 164, 190, 192 and 193, Lott teaches a method wherein the two or more segments of nucleic acid are from three or more different etiologic agents (overlapping segments of the nuclear rDNA 5.8S gene and flanking internal transcribed spacer (ITS) sequences of a variety of *Candida* species are detected using the ITS primers, p. 1200, column 1, lines 29-30, Figure 1 and Table 1).

With regard to claims 118, 146, 177 and 206, Lott teaches a method wherein said two or more segments of nucleic acid are from two or genes selected from the group consisting of: 16S rRNA, 23S rRNA, infB, rpoC, tufB, rplB, rpoB, valS, dnaK, hflB, groL, hexon, RNaseP, cya, aspS, gki, gtr, murI, mutS, xpt, ygiL, DdDp, DdRpA, and DdRpB (18S and 28S rRNA genes of *Candida* are amplified using ITS primers, and these genes are analogous to 16S and 23S rRNA genes of bacteria, p. 1199, column 2, line 19 to p. 1200, column 1, line 9 and Figure 1).

With regard to claims 128, 159 and 188, Lott teaches a method wherein said one or more bioagents is an organism (Candida species are diploid yeast, p. 1199, column 1, lines 1-9).

11. Claims 88, 89, 92, 93, 94, 106, 107, 110, 119, 120, 122-124, 129, 133, 134, 138, 147, 148, 150, 153-155, 160, 165, 166, 169, 178, 179, 181, 184, 189, 194, 195 and 198

are rejected under 35 U.S.C. 102(b) as being anticipated by Hurst et al. (Rapid Comm. Mass Spectrom. (1996) 10:377-382).

With regard to claims 88, 89, 92, 94, 119, 120, 122, 123, 129, 147, 148, 153, 154, 160, 178, 179 and 189, Hurst teaches a method of identifying one or more etiologic agents or bioagents in a sample (see page 377, Abstract and column 1, lines 12-22), comprising the steps of:

amplifying two or more segments of a nucleic acid from said one or more etiologic agents in said sample with two or more primer pairs to obtain two or more amplification products (PCR was performed for 30 cycles using two sets of primer pairs, one directed to the 5S rRNA gene and one directed to the *mip* gene fragment unique to *L. pneumophila* to produce 108- and 168-basepair products, respectively, see page 378, column 1, line 40 to column 2, line 13);

determining two or more base compositions of said two or more amplification products via mass spectrometry, without sequencing (see page 379, figure 1, where Hurst performs MALDI-TOF on both PCR products to determine base composition as the mass of the PCR product, and shows that this is a feasible method of detecting *Legionella*); and

comparing said two or more base compositions with known base compositions of known etiologic agents produced with said two or more primer pairs to identify said one or more etiologic agents in said sample (mass spectrum were obtained containing peaks for the two expected PCR products that are compared to the calculated

molecular weights for the products of known sequence, p. 379, column 1, lines 17-25, Figure 1 and Table 1).

With regard to claim 93, Hurst teaches a method wherein said mass spectrometry is Fourier transform ion cyclotron resonance mass spectrometry (FTICR-MS), ion trap mass spectrometry, quadrupole mass spectrometry, magnetic sector mass spectrometry, time of flight (TOF) mass spectrometry, Q-TOF mass spectrometry, or triple quadrupole mass spectrometry (a MALDI-TOF, time of flight, approach is used to detect two different PCR products amplified from the genomic DNA of *Legionella*, p. 378, column 1, lines 23-25).

With regard to claims 106, 107, 110, 133, 134, 138, 165, 166, 169, 194, 195 and 198, Hurst teaches a method wherein said one or more etiologic agents of disease or bioagents comprise two or more different bacterium from two different species (methods are developed for detecting *Legionella* species, p. 377, column 1, lines 12-21 and p. 378, column 1, lines 23-32).

With regard to claims 124, 150, 155, 181 and 184, Hurst teaches a method wherein said one or more bioagents in said sample cannot be identified using a single primer pair of said two or more primer pairs (the 108-bp PCR product is common to all *Legionella* species, but the 168-bp product of the variable mip gene is specific to *L. pneumophila*, p. 378, column 1, lines 25-32).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 99, 108, 109, 111-117, 125, 136, 137, 139-145, 151, 152, 156, 167, 168, 170-176, 182, 183, 185, 196, 197 and 199-205 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hurst et al. (Rapid Comm. Mass Spectrom. (1996) 10:377-382) in view of Koster et al. (WO 98/20166).

Hurst teaches the limitations of claims 88, 89, 92, 93, 94, 106, 107, 110, 119, 120, 122-124, 129, 133, 134, 138, 147, 148, 150, 153-155, 160, 165, 166, 169, 178, 179, 181, 184, 189, 194, 195 and 198 as discussed above.

With regard to claims 108, 109, 111, 136, 137, 139, 167, 168, 170, 196, 197 and 199, Hurst also teaches a method wherein said two or more different bacteria are from a genera selected from the group consisting of *Acinetobacter, Aeromonas, Bacillus,*

Bacteriodes, Bartonella, Bordetella, Borrelia, Brucella, Burkholderia, Campylobacter, Chlamydia, Chlamydophila, Clostridium, Coxiella, Enterococcus, Escherichia, Francisella, Fusobacterium, Haemophilus, Helicobacter, Klebsiella, Legionella, Leptospira, Listeria, Moraxella, Mycobacterium, Mycoplasma, Neisseria, Proteus, Pseudomonas, Rhodobacter, Rickettsia, Salmonella, Shigella, Staphylococcus, Streptobacillus, Streptomyces, Treponema, Ureaplasma, Vibrio, and *Yersinia* (methods are developed for detecting Legionella species, p. 377, column 1, lines 12-21 and p. 378, column 1, lines 23-32).

Hurst does not teach a method wherein said two or more different bacteria are two different subspecies or are from two different genera selected from the group listed above. Hurst also does not teach a method wherein said one or more etiologic agents or bioagents comprise at least one bacterium and at least one virus, two different viruses from two different species or subspecies, an unknown etiologic agent, or two different viruses from two different viral families selected from the group consisting of *Filoviridae, Flaviviridae, Arenaviridae, Bunyaviridae, Adenoviridae, Picornaviridae, Togaviridae*, and *Coronaviridae*.

Koster teaches a method for detecting a single nucleotide polymorphism in an individual using molecular mass measurements such as MALDI TOF (page 14, for example), by determining the molecular mass of an amplification product using mass spectroscopy (page 13, line 1 and page 157, lines 10-29 and example 19) and comparing the molecular mass to the molecular mass of said region in an individual known to have said polymorphism, where if said molecular masses are the same then

said individual has said polymorphism (page 13, lines 2-5 and page 158, lines 1-29, where Koster expressly compares patient 1 to a negative control and example 19). With regard to etiologic agents and bioagents, Koster expressly teaches the use of MALDI-TOF for diagnosis of bacterial or viral infections (see pages 73-79). Koster exemplifies this analysis in Example 5. Examples of disease-causing agents that infect humans and animals which may be detected by the methods of Koster include viruses of the families *Picornaviridae, Retroviridae, Togaviridae, Flaviviridae, Filoviridae, Bunyaviridae, Adenoviridae* and *Coronaviridae* (p. 73, line 18 to p. 74, line 13) and bacterium from the genera *Bacillus, Bacteriodes, Borrelia, Campylobacter, Clostridium, Enterococcus, Fusobacterium, Haemophilus, Helicobacter, Klebsiella, Legionella, Leptospira, Listeria, Mycobacterium, Neisseria, Staphylococcus, Streptobacillus,* and *Treponema*.

It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to combine the mass spectrometry analysis methods of Hurst and the mass spectrometry and base composition analysis method of Koster since both methods involve mass measurement of synthesized DNA products for comparison to known products containing wild-type or polymorphic sequences. While Hurst teaches comparison of different genetic segments amplified by PCR within a given organism or among species of genus, Koster teaches methods for comparison of single products among many different organisms across many different genera, such as bacteria, and many different viral families using primer extension assays on templates obtained from PCR. Koster states “In another embodiment, an accurate sequence

determination of a relatively large target nucleic acid, can be obtained by generating specifically terminated fragments from the target nucleic acid, determining the mass of each fragment by mass spectrometry and ordering the fragments to determine the sequence of the larger target nucleic acid (see page 75, line 26 to page 76, line 2)." Thus, an ordinary practitioner would have been motivated to detect the PCR products of Hurst with the base composition and mass spectrometric approach of Koster since Koster teaches that mass spectrometry is accurate and can improve the speed, mass accuracy and precision of the analysis in order to obtain the benefits of increased speed, accuracy without the requirement to use gel electrophoresis or other sequencing methods (see Abstract, for example). Therefore, an ordinary practitioner, motivated to detect pathogens or bioagents within a single genus by the methods of Hurst, but also would have been motivated by the teachings of Koster to perform base composition analysis on a wider variety of organisms using a plurality of primer pairs to amplify both conserved and variable regions to identify known or unknown members of a genus or family in test samples, and use primer extension techniques to identify polymorphisms within the products, such as those that may represent new mutations such as drug resistance mutations (Koster, p. 75, lines 12-24).

Response to Arguments

14. Applicant's arguments with respect to the previous rejections of record have been noted, but are moot in view of the rejection of the claims based on new grounds.

Summary

15. Claims 88-206 are rejected. No claims are allowable.

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Correspondence

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Thomas whose telephone number is 571-272-3320 and whose fax number is 571-273-3320. The examiner can normally be reached on 5 days, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on 571-272-0782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/David C Thomas/
Examiner, Art Unit 1637

/Kenneth R Horlick/
Primary Examiner, Art Unit 1637